

AMENDMENTS TO THE SPECIFICATION

Please replace the first paragraph on page 1, line 1 of the application with the following amended paragraph:

[0001] This application is a [[374]] U.S. National Stage filing under 35 U.S.C. § 371 of International Application No. PCT/US05/14210 PCT/US2005/014210 filed on April 26, 2005, which designated the U.S., [[and]] which claims the benefit under 35 U.S.C. § 119(e) of U.S. Provisional Application Serial No. 60/565,286, filed April 26, 2004, U.S. Provisional Application Serial No. 60/598,387 filed August 2, 2004, U.S. Provisional Application Serial No. 60/609,692 filed September 13, 2004, U.S. Provisional Application Serial No. 60/633,027 filed December 3, 2004, and U.S. Provisional Application Serial No. 60/633,613 filed December 6, 2004, the contents of which are herein incorporated by reference in its entirety.

Please replace paragraph [0221] of the published application with the following amended paragraph:

[0228] We hypothesized that the excess of angiogenic growth factors resulting from oncogenic transformation is reflected in platelets early in tumorigenesis, when plasma and serum levels of tumor markers are negligible negligent. In the study presented herein, we confirm the ability of platelets to accumulate selected proteins both in vivo and in vitro and show a selective replacement of one angiogenic regulator with another. Because of the multiplicity of regulators such as growth factors, inhibitors, co-factors and cytokines involved in tumor progression, we have used a high through-put SELDI-ToF MS (Surface enhanced laser desorption/ionization-time of flight mass spectrometry) to analyze protein profiles of purified platelets and plasma. The technology allows for mass spectroscopy analysis of large number of clinical samples at one time and provides an efficient, highly reproducible way for comparisons of entire platelet proteomes.

Please replace paragraph [0249] of the published application with the following amended paragraph:

[0249] To determine whether angiogenesis regulatory proteins secreted by a microscopic tumor in the subcutaneous tissue of mice could be taken up by platelets, analogous to the platelet uptake

of VEGF from an implanted Matrigel pellet, subclones of human liposarcoma (SW872) were employed as described above and previously reported [17]. We therefore used an Expression Difference Mapping system (Ciphergen®, Fremont, Calif.) to characterize and validate candidate protein biomarkers at day 32 post tumor implantation. We compared the platelet and plasma proteomes of 5 mice injected with either 200 µl serum free media (vehicle), or a cell suspension of 5×10^6 cells of the non-angiogenic or angiogenic clones of the liposarcoma cell line. The experiment was repeated twice for comparison of expression maps from separate analyses. (FIG. 30 FIG. 29 depicts a typical analysis of a platelet angiogenesis proteome in gel view format, with the respective statistical analysis of the peak intensities). VEGF, bFGF, PDGF, endostatin, angiostatin, tumstatin and other regulators of angiogenesis were significantly increased in platelets from mice bearing non-angiogenic, dormant, microscopic-sized liposarcoma (FIG. 30) (FIG. 29). The platelets associated proteins were taken up in a selective and quantifiable manner, clearly showing increased concentrations of VEGF, bFGF, PDGF, and platelet factor 4 in the platelet lysate, but not in the corresponding plasma (FIG. 29). Platelets maintain high concentrations of sequestered angiogenesis regulatory proteins ~~platelets~~ for as long as the tumor is present. Despite the fact that at 32 days the angiogenic liposarcoma ($\sim 1 \text{ cm}^3$) is ~ 100 times larger than the non-angiogenic dormant liposarcoma ($< 1 \text{ mm}^3$), platelets of mice bearing non-angiogenic tumors contain similarly increased levels of angiogenesis regulatory proteins. At this time, the plasma for either tumor type does not contain these proteins. However, in approximately 30 days, with progressive growth of the angiogenic tumor to approximately 2 cm^3 , the angiogenesis regulatory proteins begin to appear in the plasma fraction as well. In contrast, these proteins never appear in the plasma of mice bearing non-angiogenic non-angiogenic microscopic tumors.